AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for detecting translocation of a component fused to a luminophore ~~in a cell~~ in mechanically intact or permeabilised living cells, the method comprising:

detecting translocation of light emitted from said luminophore,

wherein

said component is part of an intracellular pathway, the intracellular pathway involving an enzymatic reaction,

said translocation is detected by measuring changes in luminescence intensity,

said luminophore is encoded by and expressed from a nucleic acid sequence in said cell, and

said luminophore translocates ~~translocation is~~ from cytoplasm to membrane, from membrane to cytoplasm, from an aggregated form to a dispersed form or from a dispersed form to an aggregated form.

2. (Previously Presented) The method according to claim 1, wherein translocation is caused by an influence.

3. (Previously Presented) The method according to claim 2, wherein the influence comprises contact between the mechanically intact or permeabilised living cells and a chemical substance and/or incubation of the mechanically intact or permeabilised living cells with a chemical substance.

4. (Previously Presented) The method according to claim 1, wherein the cells comprise a group of cells contained within a spatial limitation.

5. (Currently Amended) The method according to claim 1, wherein the cells comprise ~~comprises~~ multiple groups of cells contained within multiple spatial limitations.

6. (Currently Amended) The method according to claim 1, wherein the cells comprise a group of cells contained within a spatial limitation, or wherein the cells comprise multiple groups of cells contained within multiple spatial limitations, wherein the spatial limitations are spatial limitations arranged in one or more arrays on a common carrier.

7. (Previously Presented) The method according to claim 6, wherein the spatial limitations are wells in a place of microtiter type.

8. (Previously Presented) The method according to claim 1, wherein the translocation results in quenching of luminescence, the quenching being measure as a decrease in the intensity of the luminescence.

9. (Previously Presented) The method according to claim 1, wherein the translocation results in energy transfer, the energy transfer being measured as a change in the intensity of the luminescence.

10. (Previously Presented) The method according to claim 1, wherein the intensity of the light is a function of the luminescence lifetime, polarization, wavelength shift, or other property which is modulated as a result of an underlying cellular response.

11. (Previously Presented) The method according to claim 1, wherein the light to be measured passes through a filter which selects the desired component of the light to be measured and rejects other components.

12. (Cancelled).

13. (Previously Presented) The method according to claim 1, wherein the luminophore is a luminescent polypeptide.

14. (Previously Presented) The method according to claim 13, wherein the luminescent polypeptide is a fluorescent polypeptide.

15. (Previously Presented) The method according to claim 1, wherein the cells are selected from the group consisting of fungal cells, invertebrate cells and vertebrate cells.

16. (Previously Presented) The method according to claim 2, wherein the mechanically intact or permeabilised living cells are mammalian cells which, during the time period over which the influence is observed, are incubated at a temperature of 30°C or above.

17. (Previously Presented) The method according to claim 1, used as a screening program.

18. (Previously Presented) The method according to claim 17, wherein the method is a screening program for the identification of a biologically active substance that directly or indirectly affects an intracellular signalling pathway and is potentially useful as a medicament, wherein the result of the individual measurement of each substance being screened which indicates its biological activity is based on measurement of the translocation upon activation of an intracellular signalling pathway.

19. (Previously Presented) The method according to claim 17, wherein the method is a screening program for the identification of a biologically toxic substance as defined herein that exerts its toxic effect by interfering with an intracellular signalling pathway, wherein the result of the individual measurement of each substance being screened which indicates its potential biologically toxic activity is based on measurement of the translocation of said fluorescent probe in living cells and which undergoes a change in distribution upon activation of an intracellular signalling pathway.

20. (Previously Presented) A set of data relating to an influence on a cellular response in mechanically intact or permeabilised living cells, obtained by a method according to claim 1.

21. (Currently Amended) The method according to claim 1, wherein the luminophore translocates ~~translocation is~~ from cytoplasm to membrane or from membrane to cytoplasm.

22. (Currently Amended) The method according to claim 1, wherein the luminophore translocates ~~translocation is~~ from an aggregated form to a dispersed form or from a dispersed form to an aggregated form.

23. (Previously Presented) The method according to claim 14, wherein the fluorescent polypeptide is a Green Fluorescent Protein (GFP).

24. (Previously Presented) The method according to claim 23, wherein the GFP has a F64L mutation.

25. (Previously Presented) The method according to claim 24, wherein the GFP is selected from the group consisting of F64L-GFP, F64L-Y66H-GFp, F64L-S65T-GFP, and EGFP.

26. (Previously Presented) The method according to claim 1, wherein said luminophore is a fluorophore.

27. (Previously Presented) The method according to claim 15, wherein said fungal cells are yeast cells, said invertebrate cells are insect cells and said vertebrate cells are mammalian cells.

28. (Previously Presented) The method according to claim 16, wherein said temperature is from 32°C to 39°C.

29. (Previously Presented) The method according to claim 16, wherein said temperature is from 32°C to 38°C.

30. (Previously Presented) The method according to claim 16, wherein said temperature is about 37°C.

31. (Currently Amended) A method for detecting translocation of a component fused to a fluorophore ~~in a cell~~ in mechanically intact or permeabilised living cells, the method comprising:

providing said component fused to said fluorophore, wherein said fluorophore is encoded by and expressed from a nucleic acid sequence in said cell, and wherein said component is part of an intracellular pathway, the intracellular pathway involving an enzymatic reaction;

contacting said mechanically intact or permeabilised living cells with a chemical substance and/or incubating the mechanically intact or permeabilised living cells with a chemical substance; and

detecting translocation of light emitted from said fluorophore, wherein said fluorophore translocates ~~translocation is~~ from cytoplasm to membrane, from membrane to cytoplasm, from an aggregated form to a dispersed form, or from a dispersed form to an aggregated form.